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INFORMATION REPORT

PREPARED AND DISSEMINATED BY
CENTRAL INTELLIGENCE AGENCY

COUNTRY

Rumania

SUBJECT

Research in Virology, Bacteriology, and
Parasitology

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SUPPLEMENT TO REPORT #

THIS IS UNEVALUATED INFORMATION

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1. A review of the July-December 1955 issue of "Studies and Research in
Virology, Bacteriology and Parasitology" yields the following items of
possible significance:

a. Omitted from this issue of the journal are two features of the preceding
issue (i.e., January-June 1955): (1) the section devoted to abstracts
of Soviet papers which had appeared in the "Soviet Journal of Micro-
biology, Epidemiology and Immunology"; (2) a section devoted to informa-
tion on the meetings, organizational changes, future activities, etc.
of the Institute of Virology, Bacteriology and Parasitology of the
Academy of the Peoples' Republic of Rumania (PRR). Omitted from many
of the papers are all references to the institution, laboratory, etc.,
where the research was performed.

b. Apparently virus hepatitis has been, and perhaps still is, a source
of considerable concern to Rumanian public health authorities. Rumanian
scientists manifest considerable knowledge of rare forms of virus
hepatitis isolated in remote parts of the world.

c. There is considerable evidence (as was the case in the preceding issue
of the journal) of the high degree to which Lysenko's theories have
been accepted, and it will be of interest to note whether his theories
will be discarded in the future.

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d. This issue of the journal includes the first mention of the
use of radioisotopes in Rumanian medical/biological research.

e. The IP Pavlov Institute of Neurology seems to be devoting considerable
attention to research on neuroviruses.

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f. Some of the Sanepid laboratories which were established
for epidemiological detection and control purposes are apparently being
equipped to engage in basic research. the
sanepid laboratories, many of which are mobile, are ideally suited
for defense against BW.

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- g. [redacted] considerable effort is being expended in the development of blood banks. Apparently there are major blood banks or "hematologic centers" in Bucharest, Targu-Mures, Cluj, Timisoara and Iasi, and possibly in other cities as well.
- h. There is ample evidence of the high degree to which research is directed by the Academy of the Peoples' Republic of Rumania in order that there be no needless duplication and to ensure that nonessential research is kept to a minimum.

Institute

- i. In Rumania the Dr I Cantacuzino is apparently the only producer of "biologicals". In this connection, mention is made of the fact that the Institute was unable to produce enough anti-diphtheria vaccine during the period 1950-1955 when the Government conducted an intensive immunization drive necessitated by the fact that vaccination of children was badly neglected during the period 1945-1950. As a result of the neglect there were a total of 61,298 diphtheria fatalities in the five years following World War II.

2. There follows a translation of the table of contents of the July-December 1955 issue of "Studies and Research in Virology, Bacteriology and Parasitology" including title of each paper, author's name, and institution where research was performed (when given). Included also are abstracts from and/or comments on those papers which appear most significant:

Section I Virology

- a. Title of Paper: "An Interpretation of the Plurality of the Epidemic Hepatitis Viruses in Light of the Theory of the Spontaneous Variation of Viruses"

Authors: Academicians St S Nicolau and N Casil

Site of Research: Institute of Virology of the Academy of the Peoples' Republic of Rumania

Comments: The authors begin with the observation that the epidemic of virus hepatitis during the period 1942-1944 differed clinically, immunologically and epidemiologically from the epidemic which broke out in 1948 and persisted until 1955. Hepatitis viruses are classified into three main groups: Botkin hepatitis, sclerogenic hepatitis and homologous serum hepatitis. The objective of the authors is to determine whether each of these types has a separate and distinct origin or whether they are all variants of the same original strain. Their research supports the theory of spontaneous variation of viruses and they conclude that the sclerogenic virus evolved from the Botkin virus and, in turn, the homologous serum hepatitis virus evolved from the sclerogenic virus. The variations are attributed to multiple and complex changes in the external medium of the viruses, including "indiscriminate use of antibiotics".

The conclusions of the authors are based fundamentally on the theories of Iysenko but they also quoted from a wide variety of authors including the following of particular interest:

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- (1) L Miasnikov (USSR) who reported discovering in Central Asia a form of virus hepatitis intensely ascitogenic. 50X1-HUM
- (2) Skvortov (USSR) who discovered an acute idiopathic atrophy of the liver caused by hepatitis virus.

Throughout the article the authors insert caustic criticism of Western geneticists such as the following:

"Of course the representatives of the 'formal genetics' do not admit the possibility of modifications of organisms under the influence of different conditions of life. In their erroneous conceptions they claim that these modifications are directed by 'internal factors'. In the case of the adaptation of viruses to the given tissues and the resulting variations, how can we speak about 'internal factors' when it is evident that the essential factor is external. i.e., the metabolism of the host cell? The Morganists affirm that hereditary modifications are in general reduced to the recombinations of chromosomal genes. In the cases of viruses can we speak of chromosomal genes when their structure consists often of a single molecule? All these false theories lead to the negation of the theory about the hereditary transformation of living organisms. They are heresies of the so-called 'idealistic biology'."

While the conclusions of the authors have obvious political overtones, in their research they studied an impressive total of 1500 cases of virus hepatitis found in Bucharest, Floesti, Targu-Mures and Timisoara.

- b. Title of Paper: "Ecologic Relationships between Bacteriophages (Double Study Symbiotic and Lytic) and Lysogenic Bacteria of the Family of Enterobacteria. Conditions in Which Transfer of Lysogen May Take Place between 'Strains' and 'Species' of Heterologic Origin"

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Authors: Academicians M Cinca, Marcela Popovici, N Hastorescu,
G Stroian, A Valeriu, and R Weinbach

Site of Research: Not given

Comment: This article includes the first mention [redacted] in 50X1-HUM
this particular journal of the use of radioactive isotopes.
For instance, it is stated that "with the aid of labeled
radioactive isotopes, a transfer of 30 percent radioactivity
was transferred to the progeniture phage in the course
of a single cycle."

c. Title of Paper: "The Influence of the 'Scheme of Treatment' in Anti-Rabies
Vaccination both before and after Infection"

Authors: N. Constantinescu, A Stirbu, A Chertes, and C Taindel

Site of Research: The Institute of Epidemiology and Microbiology and the
Institute of Virology

d. Title of Paper: "Research on the Serum Proteins and the Activity of Blood
Catalase in Experimental Herpes Encephalitis in Rabbits"

Authors: Nella Mison-Crichel, C Pintilie, Dorina Lazar, I Olteanu
(deceased), A Petrescu and Scrinella Voinescu

Site of Research: The I P Pavlov Institute of the Academy of the Peoples'
Republic of Rumania

Comment: The research described in this paper is a part of a problem
on neuroviruses which was assigned to the I P Pavlov Insti-
tute in 1952. The work of the authors deals mainly with
biochemical modifications of serum proteins and blood
catalase in experimental herpes encephalitis. They
conclude: (1) there can be an increase or a decrease of
total serum proteins and serum globulins independently of
their biochemical modifications; (2) there is no direct
connection between increases and decreases of serum
proteins and serum globulins and the extent of the ana-
tomical lesions; (3) blood catalases show an increase when
there are extended anatomical lesions.

e. Title of Paper: "Research on the Hemagglutino-Inhibition Reaction in
Epidemic Hepatitis"

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Authors: Alexa Fazekas and Nandor Hunn

Site of Research: The Sanepid Laboratory [redacted]
[redacted] of Reghin (small town in Transylvania)

Comment: The authors conclude that the most important diagnostic
reactions for epidemic hepatitis are: (1) the Hemagglu-
tination (HA) reaction and (2) the Hemagglutino-inhibition
(HAI) reaction worked out by N Cajal and St S Nicolau. The
hepatic antigen used by the authors was supplied by the
Institute of Virology but because of the lack of a sufficient

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supply of antigen they checked the HAI reaction on only 40 cases of epidemic hepatitis in the Bighin region. The reaction proved to be accurate in 97.5 percent of the cases.

f. Title of Paper: "Contributions to the Diagnosis of Virus Hepatitis by the Hemagglutino-Inhibition Reaction (HAI)"

Authors: L M Ivan, S Bibari and Elian Rottmann

Site of Research: Department of Epidemiology of the Medico-Pharmaceutical Institute of Bucharest

Comment: This article is a review of the important contributions made by Rumanian researchers directed by St S Nicolau in developing methods of diagnosing virus hepatitis. Mention is made of the fact that diagnostic techniques were checked extensively on individuals who donated blood to the "Hematologic Center" (Blood Bank) of Bucharest. Previous issues of the journal have referred to other Rumanian blood banks and transfusion centers and [] there are major hematologic centers in the following locations: Bucharest, Targu-Mures, Cluj, Timisoara and Iasi. 50X1-HUM

g. Title of Paper: "Modifications of the Hemagglutinant Properties in Fatal Cases of Virus Hepatitis in the Period November 1954-April 1955"

Authors: J Schwartz, O Moscovici, N Cajal, J Smauel, S Dumitrescu and I Aderca

Site of Research: Not given

Comment: Although no statistics are given, the article indicates that fatalities from virus hepatitis are a fairly common occurrence throughout Rumania.

h. Title of Paper: "The Action of Hen Embryonic Liquid on the Influenza Virus"

Authors: N Cajal and M Ceplesanu

Site of Research: Institute of Virology

Comment: Authors demonstrate that amniotic and allantoic [sig] fluid increases the virulence of the influenza viruses types "A", PR₈ and "T" which were isolated by Derovici during the 1953 epidemic of influenza in Rumania. The results obtained by the authors raises the question of the degree to which embryonic fluid could increase the virulence of other viruses.

i. Title of Paper: "The Dynamic of Anti-Influenza Serum Antibodies in Children and Adults Vaccinated with an Autogenous (Home-Made) Vaccine. The Role of Non-Specific Excitants "

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Authors: A Dorevici, D Sarateanu, A Brontiki, A Retrescu, L Retschild, N Dramanescu, C Satmari, J Pretusca, A Stancu, A Timerman, and M Pironcoff

Comment: After a short review of the anti-influenza mass vaccination performed by Smorodintev, Jdanov and Nikolaev in 1952-1953 on several hundred thousand people in the USSR, the authors describe their experiments with a home-made vaccine developed at the instruction of the Minister of Health. A formulated 0.5 percent vaccine was prepared from mice lungs infected with a Type "A" influenza virus isolated in the pre-epidemic period of 1953. The vaccine was administered subcutaneously and intranasally to a group of 333 children and adults in the period November 1954-March 1955. The results were similar to those obtained in the USSR. As a practical conclusion, the authors emphasized the necessity of association of the vaccine with a non-specific excitant because of the important role of the central nervous system in the development of immunity.

j. **Title of Paper:** "The Comparative Immunizing Value of the Different Anti-Smallpox Vaccines of Ovine Origin"

Authors: I Suhaci and B Ursache

Site of Research: Not given

Comment: Mention is made of the fact that the Pasteur Institute of Bucharest prepared sensitized virus from smallpox strains obtained from Algeria and the question arises as to how virulent smallpox strains are sent from Algeria to Bucharest.

k. **Title of Paper:** "Research on the Phenomenon of 'Sensitization' of Smallpox Virus of Ovine Origin"

Authors: Lolica I Pascu

Site of Research: Not given

Comment: The phenomenon of sensitization is explained in terms of the theories of Iysenko and Mikutin.

l. **Title of Paper:** "Research on the Coxsackie Viruses; Isolation of New Coxsackie Strains; the Relationship between the Human Disease and the Experimentally Produced Disease"

Authors: Academicians C. Ionescu Mihailesti, R. Klein, F Horodniceanu, and M Zamfirescu

Site of Research: Institute of Immunology of the Ministry of Health and the Collective of Microbiology

Comment: Purpose of the authors was to investigate the spread of Coxsackie viruses in Rumania. In their acknowledgements the authors express appreciation of the contributions of the Sanepid stations in Ploesti, Arad and Braila [redacted] whose "collection of the pathological products made this research possible". [redacted]

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a. Title of Paper: "Research on the Coxsackie Viruses: Attempt to Cultivate Coxsackie Strains Isolated in Rumania on Mouse Embryonic Tissue"

Authors: D Sergiassu, F Horodniceanu, R Klein, and M Zamfirescu

Site of Research: Institute of Immunology of the Ministry of Health and the Department of Microbiology of the Medico-Pharmaceutical Institute of Bucharest

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Comment: The authors attempted [redacted] to cultivate the Coxsackie virus on mouse embryonic tissue. They failed due to lack of adequate laboratory facilities

Section II Bacteriology (Microbiology)

a. Title of Paper: "Anti-Diphtheria Vaccination in the Peoples' Republic of Rumania"

Authors: I Ardelean, correspondent member of the Academy of the PRR, Gh Calalb, C Ienistea, L Mesrobianu, T Grigoriu, E Stanica, V Dumitrescu, N Mitrica and M Fotino

Site of Research: Not given

Comment: This paper states that in the years following World War II (i.e. 1945-1950) due to the "adverse circumstances" systematic vaccination was badly neglected and the number of children not vaccinated increased to alarming numbers. As a result of the breakdown of the vaccination system, there were 61,298 diphtheria fatalities in the period 1945-1950. In 1950 the Ministry of Health launched a drive to make up for lost ground but it was not until 1955 that the diphtheria immunisation was completed. In Rumania, diphtheria anatoxin, as well as all other "biologicals", is manufactured by the Dr I Cantacuzino Institute of Serums and Vaccines, but the Institute was unable to supply sufficient quantities of diphtheria vaccine during the 1950-1955 drive. Hence, the Rumanian Government was compelled to import a thousand liters of anatoxin which was obtained partly from the Wellcome Laboratories of London and partly from the Institute of Serums and Vaccines of Budapest.

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b. Title of Paper: "The Influence of the Central Nervous System on the Treatment of Experimental Tuberculous Meningitis in Dogs"

Authors: S Ceriu, N Muntiu, E Mirza, F Predoviciu, F Marcantiu, P Begrescu and V Zaharia

Site of Research: Department of Chemotherapy of the Dr I Cantacuzino Institute

Comment: The work undertaken by the authors is . part of a research project on the "role of the central nervous system in chemotherapy" which was assigned to the "Collective of Chemotherapy" by the Academy of the PRR. The authors base their work on Pavlov's theories regarding the effect of the central nervous system on the development of normal and pathological processes in the organism. One group of experimentally infected animals was given sedatives such as lamytal, medinal, urethan, luminal, ciclonal and nembutal prior to treatment with chemotherapy. A second group was given stimulants such as strychnine, caffeine and benzedrine prior to administration of chemotherapy. In both groups the chemotherapeutic agent employed for treatment of tuberculous meningitis was sulfosalicylate-alilthiocyanate-streptomycin (I₂). The authors concluded that animals to which stimulants had been administered responded much more favorably to chemotherapy than the ones which had been given sedatives prior to chemotherapy.

The bibliography of this paper consists of citations from USSR material exclusively.

c. Title of Paper: "Research Regarding the Purification and Concentration of Toxin 'Dick'"

Authors: Lydia Mesrobianu, C Baldovin, N Mitrica, A Saregea, and V Critaenco

Site of Research: Not given

d. Title of Paper: "The Action of Hydrazide of Isonicotinic Acid (HAIN) on Mycobacteria"

Authors: Eugenia Soru, Cella Barber, Maria Isatrati, Maria Paduraru-Dumitrescu and Eugenia Podhoraki

Site of Research: Not given

e. Title of Paper: "Enzyme Modifications of Germs under the Action of the Antibiotics Streptomycin and Sulfosalicylate-Alilthiocyanate-Streptomycin (I₂)"

Author: I Ceriu

Site of Research: Department of Chemotherapy of the Dr I Cantacuzino Institute and the Laboratory of Biological Chemistry of the Bucharest Faculty of Medicine

Section III Parasitology

f. Title of Paper: "Observations on the Elements of Invasion in Parasitic Infestations of Dogs"

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Authors: G Dianulescu, D Stancu, C Bauchlach, I Manciu, D Neagu,
Ivana Dumai, I Dragaia and D Lovin

**Site of
Research:** Not given

Comment: The authors subjected 936 dogs to repeated coprologic
examinations and deparasitations and discovered the following
infestations to be prevalent: ascariasis, ankylostomiasis,
trypanuriasis and coccidiosis

b. **Title of Paper:** "Considerations of the First Foci of Infantile Leishmaniasis
Identified in the Peoples' Republic of Rumania"

Authors: M Minalescu, I Biru, S Gretu, F Iovanescu, D Ionescu,
V Lupulescu, G Michel, S Paulon, A Rotaru, I Rucovici and
C Zaharia

**Site of
Research:** Not given

Comment: Rumania's first cases of infantile leishmaniasis were
discovered in the city of Craiova and the authors dis-
covered that the main sources of infestation are the
Vidin and Lom regions of Bulgaria.

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